

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method comprising:

receiving a request for a computational resource required to begin computing a first task, the request being provided by a first portion of a network and including a requirement corresponding to computation of the first task;

matching the requirement with specifications of computational resources existing in the network;

generating a list of matched computational resources having specifications that match the requirement, the matched computational resources being selected from the existing computational resources;

in a network, responding to [[a]] the request for a computational resource to begin computing a task by sending [[a]] the list of matched computational resources to the first portion of the network, the list including network addresses relating to the matched computational resources;

receiving a selection from the first portion of the network, the selection including a network address from the list to identify one of [[a]] the matched computational resource resources for reservation;

requesting reservation of the identified computational resource, wherein a reservation number is sent to the first portion of the network when the requested reservation is successful if the selection of the computational resource is available to

~~begin computing the task, reserving the selection and sending a reservation number for the selection; and~~

sending the request to begin computing the first task to a different second matched computational resource included in the list when the requested reservation fails, wherein the requested reservation fails when the identified computational resource is ~~portion of the network if computational resources are~~ unavailable to begin computing the first task.

2. (Cancelled)

3. (Currently Amended) The method of claim 1 wherein sending the reservation number further comprises reserving the selection identified computational resource by further comprises assigning the reservation number to the identified computational resource.

4. (Currently Amended) The method of claim 1 ~~in which~~ wherein sending the reservation number ~~reserving~~ further comprises:

waiting a predetermined time period for the identified computational resource to begin computing the first task after the requested reservation is successful and the identified computational resource is reserved; and

if the predetermined time period is expired and the reserved computational resource has not begun computing the first task, then freeing the reserved computational resource for subsequent reservation for computing a second task.

5. (Currently Amended) The method of claim 1 wherein ~~responding to the request~~  
matching the requirement further comprises comparing requirements for computing  
the first task with the specifications ~~of the available computational resources~~.
6. (Currently Amended) The method of claim 5 ~~further comprising~~ wherein generating  
[[a]] ~~the list of computational resources by~~ further comprises querying a plurality of  
portions ~~portion~~ of the network.
7. (Currently Amended) A method comprising:  
  
    ~~in a network,~~ sending, by a first service, a request for ~~a list of~~ one or more  
    computational resources ~~that are available~~ required to begin computing a first task,  
    the request including a requirement corresponding to computation of the first task;  
  
    responding, by a second service, to the request by ~~collecting information on~~  
    matching the requirement with specifications of computational resources existing  
    in the network;  
  
    generating a list of matched computational resources having specifications that  
    match the requirement, the matched computational resources being selected from  
    the existing computational resources;  
  
    sending [[a]] the list of ~~available~~ matched computational resources to the first  
    service, the list including network addresses relating to the matched computational  
    resources;  
  
    receiving a ~~selected~~ selection from the first service, the selection including a

network address from the list to identify one of the matched computational resources  
resource for reservation;

reserving requesting reservation of the selected identified computational  
resource, wherein and sending a reservation number is sent to the first service when  
the requested reservation is successful of the selected computational resource if the  
selected computational resource is available to begin computing the task; and

sending the request to begin computing the first task to a third service  
corresponding to a second matched computational resource in the list when the  
requested reservation fails, wherein the requested reservation fails when the  
identified computational resource is unavailable to begin computing the first task, to  
a third service if the second service has no information on available computational  
resources.

8. (Cancelled)

9. (Currently Amended) The method of claim 7 wherein sending the reservation  
number further comprises reserving the selected identified computational resource  
by ~~further comprises~~ assigning [[a]] the reservation number to the identified  
computational resource.

10. (Currently Amended) The method of claim 7 ~~in which~~ wherein sending the  
reservation number ~~reserving~~ further comprises:

waiting a predetermined time period ~~for a request~~ for the ~~selected~~ identified computational resource to begin computing the first task, after the reservation is successful and the identified computational resource is reserved; and

releasing the ~~selected~~ identified computational resource for subsequent reservation for computing a second task if the predetermined time period is over and ~~the request for the reserved computational resource has not~~ begun computing the first task ~~been received~~.

11. (Currently Amended) The method of claim 7 wherein ~~responding to the request matching the requirement~~ further comprises comparing requirements for computing the first task with the specifications ~~of available computational resources~~ that are described by information accessible to the first service.
12. (Original) The method of claim 7 wherein the second service has a stored relation to the first service.
13. (Currently Amended) The method of claim 11 wherein the first service executes instructions on a first computer system and ~~[[the]]~~ computational resources managed by the first service comprise a first set of computational resources located on the first computer system.

14. (Previously Presented) The method of claim 13 wherein the third service has a stored relation with the first service, the third service executes instructions on a second computer system, and the computational resources that are described by information accessible to the first service further comprise a second set of computational resources that are described by information accessible to the third service.
15. (Currently Amended) A network comprising:
- a first computer system having a first set of one or more computational resources and configured to execute instructions of a first service; and
  - a second computer system configured to execute instructions of a second service, the first service configured to:
    - receive, from the second service, a request for a computational resource required to begin computing a first task, the request including a requirement corresponding to computation of the first task;
    - match the requirement with specifications of computational resources in the first set;
    - generate a list of matched computational resources having specifications that match the requirement, the matched computational resources being selected from the first set;
    - ~~respond to [[a]] the request for a list of computational resources to begin computing a task by collecting information on at least the first set of one or more~~

sending the list of matched computational resources to the second service, the list including network addresses relating to the matched computational resources;

~~send a list comprising a subset of the first set of the one or more computational resources;~~

receive a selection from the second service, the selection including a network address from the list to identify one of [[a]] the matched computational resource resources for reservation;

request reservation of the identified computational resource, wherein a reservation number is sent to the second service when the requested reservation is successful ~~reserve the selection and send an address of the selection if the selection of the computational resource is available to begin computing the task;~~  
and

send the request to [[the]] a second matched service if computational resources resource included in the list when the requested reservation fails,  
wherein the requested reservation fails when the identified computational resource is [[are]] unavailable to begin computing the first task.

16. (Currently Amended) The network of claim 15 further comprising:

a third computer system having a second set of one or more computational resources and configured to execute instructions of a third service, the third service having [[an]] a stored relation to the first service;

wherein the first service is further configured to collect information on the second set of one or more computational resources and the list further comprises a subset of the second set of the one or more computational resources.

17. (Currently Amended) The network of claim 15 wherein the first service is configured to reserve ~~reserving~~ the identified computational resource by assigning the reservation number to the identified computational resource ~~selection further comprises assigning a reservation number.~~

18. (Currently Amended) The network of claim 15 wherein the first service is further configured to:

wait a predetermined time period for the ~~reserved~~ identified computational resource to begin computing the first task, after the reservation is successful and the identified computational resource is reserved; and

if the predetermined time period is over and the reserved computational resource has not begun computing the first task, then free the reserved computational resource for subsequent reservation for computing a second task.

19. (Currently Amended) The network of claim 15 wherein matching the requirement to ~~respond to the request~~ further comprises comparing requirements for computing the first task with specifications of available computational resources from the first and second sets of ~~computational resources~~.



20. (Original) The network of claim 15 wherein the second service has a stored relation to the first service.
21. (New) The method of claim 1 wherein the requested reservation is successful when the identified computational resource is available to begin computing the first task.
22. (New) The method of claim 7 wherein:  
the requested reservation is successful when the identified computational resource is available to begin computing the first task; and  
the reservation number is sent to the first service by the second service.